

CHAPTER IV

RESEARCH FINDINGS AND DISCUSSION

A. School Description

1. Profile and History of Talenta Inclusive Primary School

SD Inklusi Talenta Kudus is an inclusive primary school that started operating on 4 July 2022. There are five classes with a total of 15 students, 8 boys and 7 girls, and 6 teachers. The school NPSN is 70041427. The principal of Talenta Inclusive primary school is Mrs. Rani Puspitasari, S.E. The school address is Jl. Hos Cokroaminoto, Gang kauman RT 02 RW 02, Mlati Lor, Kec. Kota Kudus, Kab. Kudus, Prov. Central Java. Email yayasanpendidikantumbuhkembang@gmail.com.¹

Talenta Inclusive Elementary School is a school under one foundation, the *Tumbuh Kembang* Talenta Foundation, which oversees RBA (*Rumah Belajar Anak*), Talenta Inclusive KB, and Talenta Inclusive Elementary School. The RBA is a type of tutoring institution that conducts rehabilitation for children with special needs from the early age of two years to adulthood and has been in existence for around ten years. RBA accepts children of all ages, from pre-schoolers to children currently attending school. Based on the faith of parents of past RBA program participants, the foundation expanded by creating inclusive schools, including Kindergarten and Elementary schools, to assist children who are already of school age in obtaining more education. This was confirmed by the principal during the interview:

“Another reason behind the establishment of this school is from the consultation of parents of students to us because they feel constrained if they put their children in kindergarten or public elementary school. After all, it will make it difficult for students to adapt both to the environment and the school programs in public schools. The learning and development programs

¹ ‘School Profile’, accessed 9 January 2024, <https://sekolah.data.kemdikbud.go.id/index.php/Chome/profil/054E28BF-1DF2-4298-B446-517E563640B5>.

in mainstream schools are too high for children with special needs to understand, so we try to open inclusive schools with learning programs that are tailored to children's abilities. What distinguishes our school from other public schools is the inclusion of an independent curriculum, so it is hoped that the establishment of this school can fulfill the wishes of parents to get a proper education that is not obtained when they are in public schools.²

2. School Vision, Mission and Goals of The School

a. Vision

Vision is a specific view of the management direction of the establishment. It will determine the location of the relevant instances in the future. The existence of the vision is influenced by the view that to be successful an organization or institution must have a clear direction. Following the vision of Talenta Kudus Inclusive Elementary School, namely: "Education for all: Explorative, Expressive, Independent, and Characterful" which has the following meaning:

- 1) "Education for all: Explorative, Expressive, Independent, and Characterful."
- 2) Education for all: The organization of education without discrimination.
- 3) Explorative: Having learners who can explore themselves according to their interests & and talents.
- 4) Expressive: Having a generation that is assertive, able to communicate honestly and firmly, while still respecting others.
- 5) Independent: Forming independent children in social life.
- 6) Characterized: Having learners who have a strong personality.

b. Mission

The mission is the process or stages that an institution or organization must go through to realize

² R, Transcript Interview from The Researcher With School Principal Part 1, 22 November 2023.

the vision. In addition, the task can also be said to be an elaboration of the existing vision. The following is the mission owned by Talenta Kudus Inclusive Elementary School, which are:

- 1) Providing educational services for all children without differentiating their needs (children with and without disabilities), by moral and religious values.
- 2) Provide play activities according to children's interests to explore and develop their potential.
- 3) Helping all children to develop themselves in solving daily problems according to their stage of development.
- 4) Providing care and learning according to local conditions, potential and culture.

c. Goals

In addition to the vision and mission of the institution, Talenta Inclusive Primary School also has goals in realizing the vision and mission. The educational goals of SD Inklusi Talenta Kudus are:

- 1) To build child-friendly education.
- 2) To have a skilled generation.
- 3) Having a generation that is assertive and ethical.
- 4) Having a generation that can appreciate differences.

3. Teachers Register

Teachers are one of the crucial components in the education process. In the learning process, teachers have an important role in the success of the learning process they carry out. Given the importance of the roles and tasks of teachers, every prospective teacher is required to be equipped with various skills that can support the learning process, so that the teacher becomes a professional educator in carrying out duties. There is the list of teachers who teach at Talenta Inclusive Primary School:

Table 4. 1Teachers List Data

No.	Nama	The Position
1.	RP, S.E	School Principal
2.	NN, S.Pd	Teacher
3.	AF, S.PdI	Teacher
4.	ES	Teacher
5.	SM, S.Sos	Teacher
6.	LD, S.Pd	Teacher
7.	MF, S.Pd	Teacher
8.	AC, S.Sos	Teacher
9.	EA, S.Sos	Teacher
10.	ES	Teacher
11.	ASS, S. Ag	Teacher

In the school, there are several teachers who teach with their respective sections. The teachers are divided into main teachers and assistant teachers where the main teacher is in charge of teaching and the assistant teacher is in charge of managing students during learning. Each teacher is assigned to teach a maximum of five students in a class with cases that have been categorized by the school authority.

4. School Curriculum

Talenta Inclusive Elementary School uses two curricula, namely the Merdeka curriculum and the inclusive curriculum, where the Merdeka curriculum is used to support students in learning general subjects, while the inclusive curriculum is used by teachers according to the cases of students with special needs at the school. The material used in the Merdeka curriculum used is the same as the material in special schools in general so that students can learn learning like students in normal schools. The following is the learning reference based on the Merdeka curriculum that used at Talenta Inclusive Elementary School:³

³ R, Transcript Interview from The Researcher With School Principal Part 2, 28 November 2023.

Table 4. 2 School Curriculum

Subjects	Intracurricular Allocation by Year (Week)	Allocation of Pancasila Student Profile Strengthening Project by Year	Total JP Yearly
Education of Religion	108 (3)	36	144
Pancasila Education	54 (2)	18	72
Indonesian language	108 (3)	36	144
Math	54 (2)	18	72
Physical Education Sports and Health	54 (2)	18	72
Cultural Arts: a. Music Arts b. Fine Arts c. Theatre Arts d. Dance	252 (7)	108	360
Special Needs Programmes Selected according to the type of student's disability: a. Orientation, mobility, social and communication development (visual impairment/visually impaired) b. Communication, sound perception, and rhythm development (hearing impaired/deaf)	216 (6)	-	216 (6)

c. Self-development (intellectual disability/ tunagrahita)			
d. Self-development and movement development (physically challenged/ disabled)			
e. Communication, social interaction and behavioral development (autism)			
English	72 (2)	-	72
Local Subjects	72 (2)	-	72
Total	846 (25)	234	1.080

Based on the curriculum in Table 2, English language learning for autistic students is still implemented. English learning is carried out with limited timing, with a total of 72 meeting hours a year.

5. Students Identity

Based on the results of interview, most of the students who attend Talenta Inclusive Elementary School are students who initially went to school at Talenta Inclusive Kindergarten where the Kindergarten and Talenta Inclusive Elementary School are in the same foundation. In addition, before entering the school, the parents of the students have provided therapy based on the students' needs at Rumah Belajar Anak (RBA) so that students enter the school environment in a more stable condition than the condition before therapy.

There are several levels of autism in Talenta Inclusive Primary School, including low, moderate and high levels of autism. Mild autism is categorized as the individual may

have problems with social relationships and restrictive behavior. It usually only requires minimal assistance in daily life. In the moderate autism category, more support is needed as social difficulties are evident, such as communication problems, and help is needed to control problematic behavior. When students have a high autism category, they will have autism symptoms that have severely impaired the individual's ability to live and function independently. People at this level often do not communicate verbally, have difficulty accepting change, have restrictive or repetitive behaviors, and are sensitive to sensory stimulation.

“The level of autistic students in this school varies, some are low, medium or high. Sometimes children with autism have comorbidities, such as hyperactive autism, or autism with ADHD. The grouping of students here is done based on how much the student is accompanied, for example, the level of mental disability in students who are higher than the concentration will be included in the mental disability class. If the student has a higher level of autism than a mental disability, then the student will be included in the autism class.”⁴

There are 3 autistic students at Talenta Inclusive Elementary School, including:

a. Autism N

Autism N is a transfer student from one of the schools in Kudus. Before continuing his schooling at Talenta Inclusive Elementary School, he experienced problems in his previous school so he had to leave school and do homeschooling and therapy until finally Autism N continued his schooling at Talenta Inclusive Elementary School. The type of autism that Autism N has is pure autism, where pure autism is a type of autism with normal or even above average intelligence but

⁴ R, Transcript Interview from The Researcher With School Principal Part 1.

they have difficulty in learning something that uses logic.

b. Autism U

Autism U has a type of pure autism but in him, there is still a sense of anti-sociality that makes it difficult to communicate two-way smoothly. Autism U's personality that closes himself off from the surrounding environment makes teachers have to have their way in the teaching and learning process.

c. Autism V

Unlike Autism N and Autism U, Autism V is a student with a high level of autism. The high level of autism possessed by Autism V makes her hampered in understanding learning and lagging behind the abilities of her classmates.⁵

B. Description of Research Data

1. The Using *Preschool English Application to Improve Students' Mastery of Vocabulary and Pronunciation at Talenta Inclusive School*

a. Assessment of students' characteristics

Before carrying out the learning process in inclusive classes, some preparations distinguish it from schools in general. At the school implementing education at Talenta Inclusive Elementary School, before carrying out the learning process, the school first identifies and assesses students with special needs. As Mrs. R the principal said follows:

“At the beginning of school entry, we conduct psychological tests for all students so that from the results of these tests we can get to know more about the character of each student. Our school has its standardization in accepting new students. For kindergarten, our standard is that each student must be able to sit quietly, while elementary students must be able to recognize letters, and numbers, and be able to control their own

⁵ R.

emotions. After that, we will group them based on the category of cases they have so that each student gets the treatment and learning that suits their abilities.”⁶

Following that statement, Mrs. A as the class teacher of Talenta Inclusive Elementary School also said the same thing:

“At the time of registration students will get an assessment from the school so that both teachers and parents can find out in detail what needs are needed to improve students' abilities, and then we group them according to their respective cases.”⁷

Based on the results of observations made during the research process, the learning process in inclusive classes has differences that distinguish it from schools in general, especially in the curriculum and materials taught. This difference occurs because of the heterogeneous students in its application, both the planning process and the implementation of learning and evaluation.

As stated in the study data records at Talenta Inclusive Primary School, the identification procedure begins with each new school year by writing data on each student with disabilities' deficiencies. Then the teacher conducts an assessment by observing the behavior of the children with disabilities and making notes about individualized learning services for each student.

In addition, the research data shows that the curriculum used is the same as the general school curriculum even though the school is inclusive. This was conveyed by the school principal, Mrs. R:

“The learning curriculum that we use is the same as the other school curriculum, namely the independent curriculum, even the learning

⁶ R.

⁷ A, Transcript Interview From the Researcher With Teacher Part 1, 20 November 2023.

modules or LKS that we use are also the same. What makes the difference is the inclusion program in our school. The program is that each student gets one hour to learn things based on student development.”⁸

The class teacher also confirmed that the curriculum used is the same as the curriculum in normal schools:

“Although the curriculum we used is the same as the public school curriculum, namely the independent curriculum, we don't teach everything, we only focus on the essence because the cognitive abilities of children with disabilities are different from normal students so we adjust the material to the students' abilities.”⁹

b. Implementation of English learning and use of Preschool English Game application

In the delivery of materials in English language learning, there is no specific material as stated by the principal:

“For the material, we do not provide a special benchmark. We leave it to each teacher who teaches in the class to make the material according to the own ability of the students because each student has their own ability, some can master high material, and some are still at a low level, so for the material the teacher adjusts between the abilities of the students so that all students can master the material together.”

The observation process shows that the learning outcomes at Talenta Inclusive Primary School do not refer to the independent curriculum but to the inclusive school curriculum. The target material delivered to students is not delivered in-depth and is only focused on the inclusion program according to each student's case.

⁸ R, Transcript Interview from The Researcher With School Principal Part 2.

⁹ A, Transcript Interview From the Researcher With Teacher Part 2, 27 November 2023.

This is because children with disabilities are not yet able to master all general material.

In the learning process, the teacher also conveyed the same thing, namely not being fixated on the learning module, as stated by Mrs. A as the teacher who taught:

“The material we conveyed is not based on the teaching module because it will be difficult for students, they adjust to the material. So the teacher adjusts the material according to the student's abilities because there are students who may have mastered the material, and there are also those who have not mastered it so we take the middle.”¹⁰

Based on the results of field observations, teachers provide material based on the abilities of students, for example at the beginning of the meeting the teacher provides the most basic material to students then will be repeated at the next meeting until students can understand the material presented by the teacher. In the early stages, the teacher provides basic materials as a form of student adjustment to learning materials, then gradually to more difficult materials by being accompanied by the Talenta Inclusive Elementary School inclusion curriculum during the lessons.

The English learning process for the first grade at Talenta Inclusive Primary School is only carried out to introduce foreign languages to students by introducing basic vocabulary that is commonly used, this was explained by the school principal during the interview:

“The introduction to English that we taught to students is by providing vocabulary such as numbers, fruits, jobs, and singing together using English songs so that students can identify basic English.”¹¹

At another time, the teacher also stated that students cannot be given more advanced English materials like students in normal schools:

¹⁰ A, Transcript Interview From the Researcher With Teacher Part 3, Desember 2023.

¹¹ R, Transcript Interview from The Researcher With School Principal Part 2.

“For English learning, we only give it as an introduction to a foreign language because of the limited communication between teachers and students. In addition, students will also find it difficult because the structure of English is different from Indonesian. We also only teach English to a few students, because we take students who are already fluent in reading and can be invited to communicate in two directions.”¹²

From the results of the interview, it can be seen that the teacher tries to provide a pleasant English learning environment so that students can more easily learn a new language. A pleasant learning environment can make students more active and more engaged. Therefore, teachers try various innovations to make learning more innovative by applying various learning media such as APE, flashcards, and digital game applications, such as Preschool English Game.

Based on the observation, the teacher applied the Preschool English Game application to improve students' ability to learn vocabulary and pronunciation in English. In the process of learning English teachers have implemented the Preschool English Game application as a learning support media with teacher assistance and a time limit of ten minutes per student. The purpose of limiting the time of gadget use is to avoid students' dependence on gadgets, especially digital games, as stated by the principal of Talenta Inclusive Elementary School:

“We provide opportunities for teachers to use today's modern technology such as gadgets or computers as a medium to support student learning so that they also do not fall behind with children their age. However, we give a time limit of ten minutes every day so that students are not addicted to playing on mobile phones or the like.”¹³

¹² A, Transcript Interview From the Researcher With Teacher Part 3.

¹³ R, Transcript Interview from The Researcher With School Principal Part 2.

In line with Mrs. R, the class teacher, Mrs. A, stated the same thing about using technology as a learning media for autistic students with a specified time limitation:

“The school gives us the trust to introduce technology to students so that children with disabilities can also benefit from the technology, so we provide learning media with a time limit so that they are not addicted because the main purpose of our inclusion program is therapy, so if they play too much on their mobile phones, it will affect the condition of the students.”¹⁴

Based on the results of observations made by researcher at Talenta Inclusive Elementary School, Preschool English Game was used for English learning media. It can be accessed offline and provides several features that can be used by users of the Preschool English Game application to improve vocabulary knowledge and pronunciation skills in basic English, therefore, in classroom activities the researcher uses the Preschool English Game application to help youngsters improve their English vocabulary and pronunciation. Apart from vocabulary and pronunciation, users of the Preschool English Game application can also find out the extent of students' knowledge of basic English through the game and quiz features available in it so that student progress can be monitored in a structured manner. The topics chosen by the teacher are adjusted to the student's abilities, as stated by Mrs. A:

“Topics in the application include animals, our bodies, fruits and vegetables, numbers and colors, our house, jobs, feelings and emotions, foods and drinks, weather, vehicles, classroom, and family. The teacher can choose a topic according to the student's abilities and can repeat it when the student has not mastered the topic.”¹⁵

¹⁴ A, Transcript Interview From the Researcher With Teacher Part 3.

¹⁵ A.

Before starting the lesson, the teacher gives a greeting and then continues with prayer. After ensuring that students are safe, the teacher begins the lesson by giving instructions to students such as how to open the application and how to run the application.

In the initial stage, the teacher ensures that all students in the class can open the application correctly and start the application without problems. After students can open the application, the teacher will give instructions to students to open one of the predetermined topics. According to Mrs. A, the English teacher, the initial stage of learning begins with introducing the application to the students, followed by choosing a topic in the application.

“The way it is used in each topic in the application is the same, for example the topic 'numbers and colours'. In the number and color topic, there are pictures related to numbers and colors so that students can more easily recognize the content of the topic. After that, the teacher asks the students what picture appears using Indonesian. If the student has answered correctly, the teacher will give instructions to the student to press the speaker icon so that the student can hear English from the image that appears with native pronunciation.”¹⁶

The observation result shows, There are two components of English skills using Preschool English Game application, among them are vocabulary and pronunciation.

a. Vocabulary

According to Mrs. A, a teacher who teaches English at Talenta Inclusion Elementary School, the vocabulary taught to students is basic words such as numbers, colors, animals, fruit, etc. so that students do not feel burdened when learning.

¹⁶ A, Transcript Interview From the Researcher With Teacher Part 2.

“The choice of student learning topics is adjusted to the student's abilities and is not based entirely on the material in the curriculum. The basic vocabulary taught begins with an introduction to using vocabulary that often appears in everyday life so that it is easier for students to remember and understand the vocabulary shown by the teacher.”¹⁷

In terms of observation, the researcher noticed how the teacher implemented the Preschool English game application as a learning media for autistic students. Before the teacher gives instructions to students to operate the smartphone, the teacher provides material manually to students by explaining vocabulary in Indonesian using APE for media that has been prepared, then the teacher teaches vocabulary in English after students understand the material that has been delivered. After students understand the material using both Indonesian and English, the teacher then teaches the vocabulary using the Preschool English Game application media.

Vocabulary learning is practiced by teaching vocabulary using images provided in the application. To avoid problems, the teacher gives each student detailed instructions on how to use the application while accompanied by the attending teacher.

Based on the observation, in the beginning stage the teacher provokes students to mention the picture that appears using Indonesian. After guessing correctly, then students are directed to press the speaker button to listen to the English language of the image listed. For every picture displayed in the application, the pronunciation sound will automatically come out, so that when students are still confused with the vocabulary,

¹⁷ A, Transcript Interview From the Researcher With Teacher Part 1.

they can repeat it. When students do not understand and cannot mention vocabulary in English, the teacher will mention the vocabulary manually to students.

However, as Mrs A said about the implementation of learning, as follows:

“The teacher allows students to mention the vocabulary without help until it is correct. When the teacher feels that the vocabulary mentioned by the students is wrong or not correct, the teacher will instruct the students to repeat the wrong vocabulary until it is correct. After the student is able to mention the word correctly, the teacher then gives instructions to press the next button to learn the vocabulary in the next picture. This step is repeated by the teacher until the students can mention all the vocabulary in the topic being taught.”¹⁸

The next step conducted by the teacher to ensure that students can complete learning one topic as a whole is to instruct students to press the 'surprise' button so that the image will appear randomly. This is done by the teacher to help students remember the vocabulary learned and as an evaluation for students. Students are able to be categorized as thorough in learning vocabulary if they were able to mention the word from the picture using English and interpret it in Indonesian.

b. Pronunciation

In teaching vocabulary to students, teachers also teach correct pronunciation. The purpose of introducing correct pronunciation is none other than so that students can find mistakes in their pronunciation even though what is taught by the teacher is only limited to basic English. In

¹⁸ A, Transcript Interview From the Researcher With Teacher Part 3.

addition, correct English pronunciation can also be used as a provision for students at higher education levels.

Based on the observation, the teacher trains the students' pronunciation by repeating the vocabulary that the students are learning. This is similar to what Mrs. A said:

“The teacher gives instructions for students to listen to the sound of the speaker from the application, then students are directed to imitate the sound that comes out according to what they hear first. If there are errors in pronunciation, the teacher will ask students to repeat listening to the application speaker, after which students will pronounce the pronunciation they have heard again. The teacher gives similar instructions to the students repeatedly until the students can pronounce the vocabulary correctly, or close to it.”¹⁹

c. Students' improvement in using Preschool English game application

Based on the results of observations on the application of the Preschool English application for autistic students, there is an increase after being implemented repeatedly and consistently, especially in vocabulary and pronunciation skills. As stated by the teacher, Mrs A, the use of the application works better for ASD students due to its persistence and patience.²⁰ The teacher assesses students improvement by using the quiz game on the application to find out student progress on the vocabulary, and for the pronunciation improvement the teacher assesses by repeating the vocabulary.





¹⁹ A.






²⁰ A, Transcript Interview From the Researcher With Teacher Part 4, Desember 2023.






a. Vocabulary







The observation shows that in learning, students are unable to easily mention the vocabulary properly. Each student has a different ability in memorizing, some can easily mention and memorize vocabulary, and some have difficulty in getting it right. The following is a list of students' repetition in mentioning vocabulary using the Preschool English Game Application:

Table 4. 3 Students' Repetition List

Picture	Students' Repetition		
	Autism N	Autism U	Autism V
	2 times	4 times	5 times
	1 times	3 times	6 times
	3 times	4 times	4 times
	4 times	6 times	8 times

Picture	Students' Repetition		
	Autism N	Autism U	Autism V
	2 times	4 times	7 times
	5 times	7 times	7 times
	3 times	4 times	8 times
	4 times	3 times	8 times
	2 times	2 times	6 times

Picture	Students' Repetition		
	Autism N	Autism U	Autism V
	3 times	4 times	7 times
	3 times	5 times	6 times
	5 times	5 times	4 times
	6 times	5 times	6 times
	3 times	4 times	4 times

Picture	Students' Repetition		
	Autism N	Autism U	Autism V
	6 times	5 times	7 times
	4 times	4 times	6 times
	5 times	6 times	5 times
	4 times	5 times	7 times
	5 times	6 times	5 times
	3 times	4 times	9 times

The table 3 above shows that each student has a different level of ability to learn vocabulary. Autism N and Autism U have fewer repetitions than Autism V. This is due to the autism level of each student.

In the word bird, Autism N repeated 2 times, Autism U repeated 4 times, and Autism V repeated 5 times. In the word cat, Autism N repeated 1 time, Autism U repeated 3 times, while Autism V repeated 6 times. In the word cow, Autism N repeated 3 times, Autism U repeated 4 times, while Autism V repeated 4 times. In the word crab, Autism N repeated 4 times, Autism U repeated 6 times, and Autism V repeated 8 times. In the word dog, Autism N repeated 2 times, Autism U repeated 4 times, and Autism V repeated 7 times. In the word donkey, Autism N repeated 5 times, Autism U repeated 7 times, and Autism V repeated 7 times. In the word duck, Autism N repeated 3 times, Autism U repeated 4 times, and Autism V repeated 8 times. In the word elephant, Autism N repeated 4 times, Autism U repeated 3 times, and Autism V repeated 8 times. In the word fish, Autism N repeated 2 times, Autism U repeated 2 times, while Autism V repeated 6 times. In the word frog, Autism N repeated 3 times, Autism U repeated 4 times, and Autism V repeated 7 times.

In the word goat, Autism N repeated 3 times, Autism U repeated 5 times, and Autism V repeated 6 times. In the word horse, Autism N repeated 6 times, Autism U repeated 5 times, and Autism V repeated 4 times. In the word kangaroo, Autism N repeated 6 times, Autism U repeated 5 times, while Autism V repeated 6 times. In the word monkey, Autism N repeated 3 times, Autism U repeated 4 times, and Autism V repeated 4 times. In the word panda, Autism N repeated 6 times, Autism U repeated 5 times, and Autism V repeated 7 times. In the word rabbit,



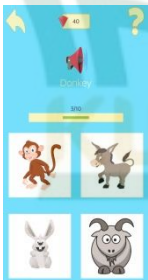
Autism N repeated 4 times, Autism U repeated 4 times, and Autism V repeated 6 times. In the word snake, Autism N repeated 5 times, Autism U repeated 6 times, and Autism V repeated 5 times. In the word spider, Autism N repeated 4 times, Autism U repeated 5 times, and Autism V repeated 7 times. In the word turtle, Autism N repeated 5 times, Autism U repeated 6 times, and Autism V repeated 5 times. In the word zebra, Autism N repeated 3 times, Autism U repeated 4 times, while Autism V repeated 9 times.

These findings show that each student has various capacities for learning vocabulary, both in saying and memorizing. Autism V has far more repetitions than Autism N and Autism U, therefore it takes longer to learn.

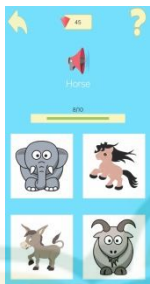
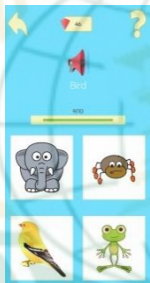
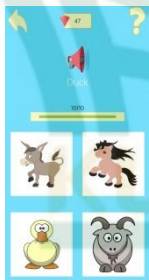
After ensuring that students are complete in learning vocabulary and repeating to remember vocabulary, the teacher gives a quiz game as a form of assessment for students. As Mrs A said, the purpose of this assessment is to find out the extent of vocabulary development that students have learned.²¹ The following are the results of the assessment conducted by the teacher:

²¹ A, Transcript Interview From the Researcher With Teacher Part 3.

Table 4. 4 Students' Vocabulary Assessment

No.	Quiz	Students' Answer		
		Autism N	Autism U	Autism V
1.		Correct	Correct	Correct
2.		Correct	Correct	Correct
3.		Correct	Correct	Correct

No.	Quiz	Students' Answer		
		Autism N	Autism U	Autism V
4.		Correct	Correct	Correct
5.		Correct	Correct	False (Her answer is crab)
6.		Correct	Correct	False (Her answer is snake)
7.		Correct	Correct	Correct

No.	Quiz	Students' Answer		
		Autism N	Autism U	Autism V
8.		Correct	False (His answer is donkey)	Correct
9.		Correct	Correct	Correct
10.		Correct	Correct	Correct
Students' Answers:		Correct		
Remarks		Improved	Improved	Improved

The table 4 above shows that there is an improvement in students learning vocabulary using the Preschool English Game application. What is assessed in the game is how many students can answer questions about the

vocabulary that has been taught. Through the game, students need to answer by pressing the picture according to the question provided. The questions in the game are in the form of vocabulary audio that can be listened to by students, in addition to audio there is also vocabulary in writing underneath so that it can make it easier for students to answer questions. Students are able to repeat the audio before answering the questions.

The table above shows that there is an improvement in students learning vocabulary using the *Preschool English Game* application. What is tested in the game is how much students can answer questions about the vocabulary that has been taught. As stated by Mrs A, in the game students must answer by pressing the picture according to the question provided.

“The questions in the game are in the form of vocabulary audio that can be listened to by students, in addition to audio there is also vocabulary in writing underneath so that it can make it easier for students to answer questions. Students can also repeat the audio before answering the questions.”²²

According to the observation, the steps taken by the teacher in the assessment are by giving instructions to students to press the audio button, and then asking students to answer by pressing the picture that matches the audio. After the students answer the questions, the teacher asks about the meaning of the vocabulary with an emphasis on the memory of the vocabulary that has been taught. When the student is wrong in answering the question, the teacher immediately gives correction to the student, then the student

²² A, Transcript Interview From the Researcher With Teacher Part 4.

continues to the next question. The questions available on the topic include guessing the picture of the word duck, bird, horse, monkey, spider, frog, turtle, dog, fish, and cat.

Based on the table 4 above, shows that students experienced an increase in mastering vocabulary after the teacher used Preschool English game application media. This is evidenced by Autism N can answer all quizzes correctly. In Autism U there was one mistake in answering the quiz, namely on the word 'horse' Autism U answered 'donkey'. While in Autism V there were two mistakes, namely on the word 'cow' answered 'crab', and on the word 'frog' Autism V answered 'snake'.

b. Pronunciation

Before being taught using the application, there were many pronunciation errors uttered by students. Here are the students' errors in pronunciation:

Table 4. 5 Students' Errors in Pronunciation

Vocabulary	Phonetic Words	Students' Pronunciation		
		Autism N	Autism U	Autism V
Bird	/bɜ:d/	bɜd	bɜrd	berd
Cat	/kæt/	ket	ket	ket
Cow	/kaʊ/	kow	kow	kow
Crab	/kræb/	kræb	kræb	kræb
Dog	/dɒg/	dog	dog	dɒg
Donkey	/dʌŋki/	danki	dangki	dankei
Duck	/dʌk/	dak	dak	dak
Elephant	/ˈɛləfənt/	ilepen	eləfənt	ilefen
Fish	/fɪʃ/	fɪʃ	fis	Fis
Frog	/frɒg/	frog	frog	flog
Goat	/gəʊt/	got	got	got
Horse	/ˈhɔ:s/	hores	hors	horse
Kangaroo	/kæŋgəru:/	kangaru	kəngaru	kangaru
Monkey	/ˈmʌŋki/	mangki	mangki	mangki

Vocabulary	Phonetic Words	Students' Pronunciation		
		Autism N	Autism U	Autism V
Panda	/pændə/	panda	Penda	panda
Rabbit	/'ræbɪt/	rebbit	rabbit	rebit
Snake	/sneɪk/	sneik	snek	sneik
Spider	/'spaɪdə/	spaidər	spaider	spaider
Turtle	/'tɜ:təl/	tartel	tartel	tartel
Zebra	/'zi:brə/	zibra	zibra	zebra

During the interview, Mrs. A stated that autistic students have difficulty pronouncing some letters, which affects their pronunciation.

“Students only pronounce words according to what they are. In addition to listening, students also read the word according to the existing writing so that it becomes mispronunciation. From the errors found in students, the teacher then analyses and corrects students' pronunciation to reduce more fatal errors in each vocabulary that has been learned by allowing students to listen to the audio again and pronounce the pronunciation correctly. After doing a lot of practice, students have an improvement in pronunciation. Although not correct overall, it is included in a very good improvement for autistic students. Because of the limitations they have, they do not get the maximum results as expected.”²³

The following is the student's improvement in pronunciation after using the application:

²³ A.

Table 4. 6 Student's Improvement in Pronunciation

Vocabulary	Students' Pronunciation		
	Autism N	Autism U	Autism V
Bird	/bɜ:d/	/bɜ:d/	berd
Cat	/kæt/	/kæt/	/kæt/
Cow	kaw	kow	kaw
Crab	/kræb/	/kræb/	/kræb/
Dog	dag	dog	/dɒg/
Donkey	/dʌŋki/	dangki	danki
Duck	/dʌk/	/dʌk/	/dʌk/
Elephant	ilepent	/ˈɛləfənt/	ilefent
Fish	/fɪʃ/	fis	fis
Frog	frog	frog	frog
Goat	got	got	got
Horse	hors	hors	hors
Kangaroo	kəŋgaru	kəŋgaru	kangaru
Monkey	/ˈmʌŋki/	/ˈmʌŋki/	/ˈmʌŋki/
Panda	pənda	pənda	panda
Rabbit	/ræbɪt/	/ræbɪt/	/ræbɪt/
Snake	/sneɪk/	snek	sneik
Spider	spaidər	spaidər	spaidə
Turtle	tartəl	tartəl	tartəl
Zebra	zibra	zibra	zebra
Remarks	Improved	Improved	Improved

From the table 6 above, it can be seen that students have improved in pronunciation, but students cannot fully pronounce according to the phonetic word. It is caused due to the fact that students have problems in pronouncing some letters and unable to imitate correctly.

As stated by Mrs. A, Autism N experienced a significant improvement in learning pronunciation which is assessed through repetition performed by students during learning, there were several words that he could pronounce correctly such as the words bird, cat, crab, donkey, duck, fish, monkey, rabbit, and snake. In other words, Autism N also improved

although his pronunciation was not perfect. In Autism U, he improved on the pronunciation of the words bird, cat, crab, duck, elephant, monkey, and rabbit which were pronounced correctly, and needed a little justification on other words. Autism V managed to improve his pronunciation of the words cat, crab, dog, duck, monkey, and rabbit correctly, while the other words still needed correction.²⁴

d. The result of the using Preschool English game application

Based on the results of interviews and observations that have been made during the learning process, the use of the Preschool English game application in mastering vocabulary and pronunciation shows different learning outcomes for each student. These differences include Autism N who can more easily learn vocabulary and pronunciation because of his background who has done a lot of therapy so that it is easier to understand the learning material. Autism U is quite stable in learning and understanding vocabulary and pronunciation. While Autism V has faced a lot of difficulties in learning.

After students are able to learn the material in a topic, the teacher assesses students as a measure of mastery of the material that has been given. The assessment in the form of gameplay makes students enthusiastic about learning. The results of the assessment proved to improve students' mastery in learning vocabulary and pronunciation, especially on the topic of animals. In vocabulary improvement, Autism N could answer all quizzes correctly, Autism U answered 9 quizzes correctly, and Autism V answered 8 quizzes correctly. In pronunciation, students who initially only pronounce based on what they improve to be able to pronounce correctly even though it is not perfect because of the limitations they have.

²⁴ A, Transcript Interview From the Researcher With Teacher Part 3.

2. The Obstacles in the Using Preschool English Game Application to Improve Students' Mastery of Vocabulary and Pronunciation at Talenta Inclusive School

Based on the results of observations, researcher found several obstacles experienced by teachers when implementing the Preschool English game application as a learning medium for autistic students. The obstacles are divided into two factors, which are internal and external:

a. Internal factors

Internal barriers to using the Preschool English game application, including:

1) Students who are can't focus on learning.

The focus level of ASD students is different from students in general. Students tend to prefer to play rather than pay attention to instructions from the teacher during learning. Objects in the classroom can also interfere with the learning process because ASD students are easily provoked by foreign objects that they find interesting and disturb their minds.

Students are not conducive to each other and this also affects the learning process. This is because students disturb each other causing the students who are disturbed to not pay attention to the learning. In addition, sometimes students are also more interested in pressing the buttons in the game rather than following the instructions given by the teacher.

2) Lack of chemistry that exists between teachers and students.

The chemistry in this case is the relationship between the teacher and the students during the learning process. The chemistry does not appear because of the limitations possessed by students so that teachers find it difficult to understand students. Limitations in the form of students' ability to communicate two-way are one of the factors inhibiting the learning process. When the teacher explains and asks questions to students,

students tend to divert to topics that are not in accordance with the learning material. In addition, students also have difficulty in mentioning some letters so that it has an impact on pronunciation. English is a foreign language that makes students constrained in pronouncing words that are different from their writing, and becomes a challenge in the learning process. Students who have difficulty in mentioning letters such as the letter 'R' also affect the pronunciation mentioned by students.

b. External factors

External factors that become obstacles in learning using the Preschool English Game application are divided into 2, there are:

1) Limited time in using gadgets.

The limited time in using the application also greatly affects students' learning outcomes. Each student is only given ten minutes to use the application. This time is insufficient if the teacher explains the learning topic thoroughly using the application. The reason for the time limitation is that students should not use the gadget for a long time because it can cause addiction which adversely affects the results of the therapy that has been given.

2) The teacher does not make a Learning Plan.

Apart from the limited time to use digital media, teachers also do not make a learning plan during learning. Teachers only teach materials based on the standards of the Merdeka curriculum and then the difficulty of the material level is adjusted to the abilities of students. The material taught by the teacher is only basic as an introduction to basic English to students which only emphasises vocabulary knowledge and pronunciation.

The obstacles are justified by Mrs. A as a teacher who teaches in the classroom, through interviews she

stated some of her obstacles in teaching basic English to autistic students:

“Many obstacles occur during learning, especially when using game application media in the introduction of basic English, including the limited time of students in using gadgets. The school only gives 10 minutes to each student to use the gadget because it is feared that if it is too long or too much use causes students to become addicted and difficult to concentrate on learning. The level of concentration of students who are easily distracted is also an obstacle in learning, for example when learning using the application, students are more curious about the buttons in it rather than the vocab being taught.”²⁵

The teacher emphasized that students experience obstacles in two-way communication. These obstacles affect the learning process in understanding the material taught by the teacher:

“The various levels of autistic students in this class affect learning. Some students are easy to communicate with, and some are difficult to communicate two-way, which can hinder learning. If autistic students who can communicate fluently still need a long time to understand the material, then students who are difficult to communicate also need more time so that learning time will be reduced and ineffective.”²⁶

Based on the observation, in learning vocabulary, students experienced many obstacles, especially in the early stages of adjusting to the use of media. The teacher confirmed that students could not perform according to the instructions given correctly:

“Teaching students with special needs must be patient because students are easily

²⁵ A, Transcript Interview From the Researcher With Teacher Part 4.

²⁶ A.

bored and are more interested in the surrounding objects that interfere with their vision. So the teacher must be as much as possible to take the student's focus during learning. Sometimes students even disturb their friends who are focused on learning, even students usually scramble to play games. When students play using game media without assistance, they even fight and fight over it, so the teacher has to fully assist and determine the topic in the game."²⁷

Mrs A also explains some of the students' obstacles in learning vocabulary and pronunciation that each student has problems in mentioning some letters:

"Students who are fluent and master the vocabulary can proceed to the next material, while students who are not fluent are still repeating the vocab until they can match other students. The varying abilities of students in mastering the vocab taught makes teachers have to teach students individually and cannot be in groups with other students, so the time used in learning is less than optimal. In addition, students who are sometimes curious about what their friends are doing also hinder learning."²⁸

The obstacles of each student in pronunciation are almost the same, namely students who still difficult to be invited to two-way communication so that the teacher must repeat the pronunciation of the application repeatedly until the student's focus is diverted on the material. This factor also affects student pronunciation, but after repetition of pronunciation, students can pronounce correctly even though there are still errors in some letters.

²⁷ A.

²⁸ A.

C. Analysis of Research Data

Based on the results of research regarding the way autistic students learn by using the Preschool English game application to improve English vocabulary and pronunciation at Talenta Kudus Inclusive Elementary School obtained from interviews, observations, and documentation studies. Furthermore, a discussion will be carried out which will be associated with relevant theories to answer research questions.

1. The Using Preschool English Application to Improve Students' Mastery of Vocabulary and Pronunciation at Talenta Inclusive School.

Digitalization is currently experiencing a huge development, especially in the field of technology and information. This also applies to the educational field, where technological developments also affect the education curriculum system. The latest curriculum is the Merdeka curriculum, which provides flexibility for educators to create quality learning that suits the needs and learning environment of their students and create various learning media.²⁹

The use of technology allows teachers to explore freely to be applied in teaching and learning activities.³⁰ The technology might include smartphones, gadgets, laptops, etc. that are considered to support the learning process. Abid Haleem et. al, in their research mentioned that technology can make students more involved in learning if technology is used in the classroom because young people today are quite fond of using electronic gadgets that are able to attract their interest so that it can increase their level of involvement.³¹ Similarly, for ASD students, technology can be applied as a learning tool by teachers in schools because ASD students have full rights

²⁹ Khoirurrijal et al., *PENGEMBANGAN KURIKULUM MERDEKA* (Malang: CV. Literasi Nusantara Abadi, 2022).

³⁰ Eko Wahyu Pricahyo, Muhammad Akhyar, and Suharno Suharno, 'Modern Technology: Has It Been Utilized in Learning?', 2018.

³¹ Abid Haleem et al., 'Understanding the Role of Digital Technologies in Education: A Review', *Sustainable Operations and Computers* 3 (2022): 275–85, <https://doi.org/10.1016/j.susoc.2022.05.004>.

to get quality education, work towards productive fields, and get the same rights as other students.

An alternative approach to developing skills in children with ASD is game-based training, a strategy made possible by recent advances in interacting with technology. Gamification of training involves the child playing a video game that engages them in specific target behavior, intending to the model it in real life. Gameplay demands focus and attention, motivates the user to practice, and gives the user a sense of accomplishment, even if the user is unable to complete that task in the real world.³²

Holyfield et.al, said that game applications are one of the media that can make a good contribution to learning for autistic students.³³ Such applications are used to facilitate understanding of the material because they contain images and even sounds along with explanations so that they can attract students to learn. The purpose of using gamification as a learning medium is to facilitate students' learning, considering that autistic students are more easily bored so they need innovations. In addition, the use of gamification for ASD students is aimed to introduce technology therefore ASD students could follow the development of technology without being discriminated.³⁴

English teachers at Talenta Inclusive Elementary School utilize digital technology, namely the Preschool English game application. Preschool English game application is one of the media that supports learning in the Merdeka curriculum, which forces teachers to be more creative in conveying knowledge in the classroom.

³² Ya-Shu Kang and Yao-Jen Chang, 'Using Game Technology to Teach Six Elementary School Children With Autism to Take a Shower Independently', *Developmental Neurorehabilitation* 22, no. 5 (4 July 2019): 329–37, <https://doi.org/10.1080/17518423.2018.1501778>.

³³ Christine Holyfield et al., 'Systematic Review of AAC Intervention Research for Adolescents and Adults with Autism Spectrum Disorder', *Augmentative and Alternative Communication* 33, no. 4 (2 October 2017): 201–12, <https://doi.org/10.1080/07434618.2017.1370495>.

³⁴ Sweidan et al., 'Autistic Innovative Assistant (AIA): An Android Application for Arabic Autism Children'.

The application of Preschool English game application by English teachers at Talenta Inclusive Elementary School is considered quite effective because the delivery of material in English is carried out clearly and interactively.

The use of Preschool English game application is considered to facilitate the learning process and students understand the material more easily and are more active in learning activities because games can attract students' interest to avoid boredom in learning. By using the Preschool English game application, students are able to be captivated or see directly the examples of actions whose material has been explained by the educator. In this case, students are easier to understand and master the material presented by the educator. The utilization of Preschool English game application as an English deep learning media is able to support the two-way learning process between students and teachers, which is an important part of the educational process. In addition, the communication process may also be in the form of multimedia communication so that it will enrich the learning process and it is hoped that the learning process will be of higher quality and students with ASD will not be left behind.

English learning at Talenta Inclusive Elementary School is conducted at every meeting using Preschool English game application media after the teacher explains the learning material. Students are quite interactive to follow the lesson that is currently conducted, besides that they also get additional insights into the subject matter. By using games from the Preschool English game application, teachers can also directly apply several English skills, including listening to the sound of the vocabulary on each topic, reading when they read the words in the application, and speaking when students pronounce the vocabulary that has been learned. From these abilities, the teacher only emphasizes the ability to recognize vocabulary and pronunciation as a form of basic English experience for ASD students.

a. Vocabulary

English learning using picture media from the Preschool English game application in the classroom when learning is in progress. The teacher gives and accompanies students using smartphones to access the application. Before being given the application, the teacher explains manually by printing the material in the application to be used as learning media. When applying the game, the teacher sometimes repeats playing the audio to ensure students can understand and pronounce the vocabulary taught. After the teacher explains the material and gives commands to students, then students begin to mention vocabulary one by one according to the pictures that appear in the application.

The teacher gives the assessment after the students can mention the vocabulary both sequentially and randomly according to the pictures listed on the application. The assessment is given by the teacher to see the progress that students make after learning vocabulary using the Preschool English game application. The use of games as learning and assessment media is proven to be able to attract students' interest in learning and help students increase their knowledge of vocabulary. In addition, students' memory in recognizing vocabulary lasts longer.

The application of Preschool English games application as learning media is considered to be able to improve students' ability to learn vocabulary. This is evidenced by the improvement of students during learning and assessment who initially did not know and even found it difficult to learn English to be excited and able to master the topics presented by the teacher. Autism N was able to answer all questions correctly during the assessment. Autism U made one mistake in answering the assessment questions, and Autism V made two mistakes in answering the questions.

b. Pronunciation

The use of *Preschool English* game application by English teachers at Talenta Inclusive Elementary School is also applied to improve students' ability in pronunciation. The goal is to prevent students from mispronunciation even though it is only basic English. The implementation is carried out by provoking students to pronounce vocabulary in English. The teacher will repeat the same word when the students make mistakes in pronunciation until the teacher considers the spoken word is correct.

At the beginning of learning pronunciation, students could only pronounce according to the vocabulary writing and even could not pronounce the pronunciation at all. After the teacher changed the media using the *Preschool English* game application, students experienced an improvement. The improvement in pronunciation is not the same as native pronunciation, but it is almost similar.

From the results of research on the use of *Preschool English* game applications for autistic students in learning there are significant improvements. As a benchmark to see the results of vocabulary and pronunciation improvement, teachers have their own pattern. The benchmark is in the form of questions, which are questions about the meaning of the pictures that have been mentioned by students both in Indonesian and English, for example, “

Cow artinya apa?”, “Bahasa Inggrisnya kucing apa?”. While the question “Ini gambar apa?” is given by the teacher to test students' pronunciation of the word spoken after guessing the picture listed. These questions help students to improve their skills by using the *Preschool English* game application.

2. The Obstacles in the Using *Preschool English* Game Application to Improve Students' Mastery of Vocabulary and Pronunciation at Talenta Inclusive School

In using the *Preschool English* game application as a learning media, teachers experience several obstacles.

These obstacles are in the form of student's lack of focus during learning hours and tend to prefer to play rather than pay attention to instructions from the teacher during learning, making the class uncondusive. It also makes it harder for the teacher to communicate closely with students in a two-way interaction.³⁵

The obstacles faced by teachers in teaching autistic students vary depending on the individual needs and severity of the student's autism. These barriers consist of two factors, including internal and external factors, there are:³⁶

a. Internal factors

Internal factors that affect the learning process come from within the student, this includes the insecurity that exists within the student in learning with classmates. In addition, another factor that becomes an obstacle is students who feel strange in meeting people who are considered strangers and have never met before. Students can also have deficits in attention and concentration with objects or situations around them so that they do not focus on learning. This is influenced by the cognitive and motoric abilities possessed by students.

Students who have difficulty producing and distinguishing words with correct pronunciation, because autistic students have an inflexible speech style, make it difficult for students to teach pronunciation because autistic students are perfect. It takes a long time and regular practice to teach students to do pronunciation correctly and perfectly. Another inhibiting factor in teaching autistic students is that teachers must use verbal and

³⁵ Ruimin Huang et al., 'The Clinical Implications of the Academic Performance of the Siblings of Individuals With Autism Spectrum Disorder', 2022.

³⁶ Acep Haryudin and Siti Ariani Jamilah, 'TEACHER'S DIFFICULTIES IN TEACHING SPEAKING USING AUDIO VISUAL AID FOR AUTISTIC STUDENTS', *ELTIN JOURNAL, Journal of English Language Teaching in Indonesia* 6, no. 2 (30 October 2018): 107, <https://doi.org/10.22460/eltin.v6i2.p107-116>.

imagination in learning methods that often involve student learning in everyday behaviour to make it easier for students to understand the material presented.

b. External factors

Differences in learning styles, environment, mindset, and habits between autistic students and students in general become a factor inhibiting students in learning activities therefore teachers must adjust to the characteristics possessed by students. In addition to these differences, external factors inhibiting teaching using media require long preparation and require a lot of repetition in delivering the material. In addition, the use of learning plans is also very important in learning, although teachers only use the Merdeka curriculum as a benchmark without teaching all the material in the curriculum. Without the use of a learning plan, learning becomes less conducive and structured.

These obstacles mostly occur from the student's self. The cause of this is due to the level of anxiety possessed by students, which can affect students' abilities, both social and cognitive abilities in learning.³⁷ The higher the level of anxiety possessed by autistic students, the more difficult it will be for them to build relationships with the surrounding environment. Anxiety also affects when students communicate, such as pupils eyes that refuse to make eye contact with the interlocutor, not even focusing on what is being done in the classroom which makes autistic students unable to master an ability easily like students in general.³⁸

³⁷ Emily McDougal, Deborah M. Riby, and Mary Hanley, 'Teacher Insights into the Barriers and Facilitators of Learning in Autism', *Research in Autism Spectrum Disorders* 79 (November 2020): 101674, <https://doi.org/10.1016/j.rasd.2020.101674>.

³⁸ McDougal, Riby, and Hanley.